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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/474,941	12/30/99	ROSENGAUS	E KLA1P001C1

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EXAMINER

ROSENBERGER, R  
ART UNIT PAPER NUMBER

2877  
DATE MAILED: 09/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/474,941

Applicant(s)

ROSENGAUS et al

Examiner

Richard Rosenberger

Art Unit

2877



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Aug 20, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 4-6, 9, 11, 13-22, and 43-58 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-6, 9, 11, 13-22, and 43-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

1. The preliminary amendment filed 20 August 2001 does not conform to 37 CFR 1.126, in that the amendment proposes to add new claims 23-38. This application was originally filed with claims 1-42, with claims 23-42 being cancelled by the amendment filed 30 December 1999. As claims 1-42 have already been presented, 37 CFR 1.126 requires any newly added claims be numbered beginning with the next available claims number, here claim 43. To comply with 37 CFR 1.126, the newly added claims 23-42 have been renumbered and entered as new claims 43-58. This new numbering should be used to refer to the claims.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-6, 9, 11, 13- 22 and 43-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morioka et al (US 5,274,434) taken with Morioka et al (US 5,463,459) and Yamamoto et al (US 5,623,340), and also Levy (US 5,465,154),

Morioka et al('434) shows, in figure 22, a manufacturing system with a plurality of "job stations" (1502), inspection stations (1503) and the like. There is also a handling tool for moving wafers amongst the various stations.

Morioka et al ('434) shows that it is known to use a plurality of modular inspection units across the width of a integrated circuit manufacturing tool. In figure 17, the reference shows such a system which can scan the entire wafer in one pass; note column 10, lines 64-68, where this embodiment is described by "the full surface inspection of the product wafer 111 can be made by one scanning 510 by disposing two or more lines of microlenses 1301 in a zigzag arrangement as shown in FIG. 17." Note also Morioka et al ('459), figures 8, 15 and 16, and Yamamoto et al, figures 2 and 4, which also show this.

Morioka et al('434) teaches that the system of that patent can provide "real time inspection in mass production lines (column 2, line 57) and can be placed "in a transfer system between processing apparatuses" (column 2, line 62). Thus Morioka et al teaches placing the system in line. Such a system can be placed anywhere in such a manufacturing system which is convenient or where inspection is desired.

As noted in the instant specification, page 18, line 35 through page 19, line 10,, inspection systems for wafers using time delay integration are known in the art; using this known system for it known purpose would have been obvious. Placing the detection apparatus outside of the vacuum to observe the wafer though a window is known in the art, as shown by Levy, and would have thus been obvious.

When using multiple channels, as taught by Morioka et al, it would have been obvious to duplicate not only the optics, but the channel specific processing

into a local processor associated with each channel, which using a master processor for control and processing which are not unique for each channel. This is taught by Yamamoto et al; note local processors 28A-28F and master processor 29.

Those of ordinary skill could make appropriate variants of the system of Morioka et al, choosing other known and appropriate detectors, other types of stations needed for the particular processing being used, etc.

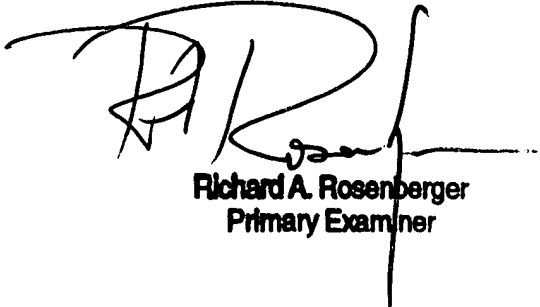
4. Saisho et al (US 5,414,506) also shows optically measuring a wafer by means of an optical measuring apparatus located outside of a vacuum chamber which views the wafer through a window in the vacuum chamber.

5. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger  
4 September 2001



Richard A. Rosenberger  
Primary Examiner